SPP-ID910

SONY

US Model
Canadian Model

SERVICE MANUAL

SUPPLEMENT-4

File this supplement with the service manual.

Subject: BASE MAIN and HAND MAIN board Modification

(ECN-CP801097)

1. DISCRIMINATION

On this set, the boards have been changed in the midway of production.
Refer to this service manual supplement-4, if the serial number given on the bottom of the base unit is as listed below.
If the given serial number does not correspond to the following table, refer to original service manual (9-923-970-12) .

Model	Serial Number
US model	550,001 and later
Canadian model	110,001 and later

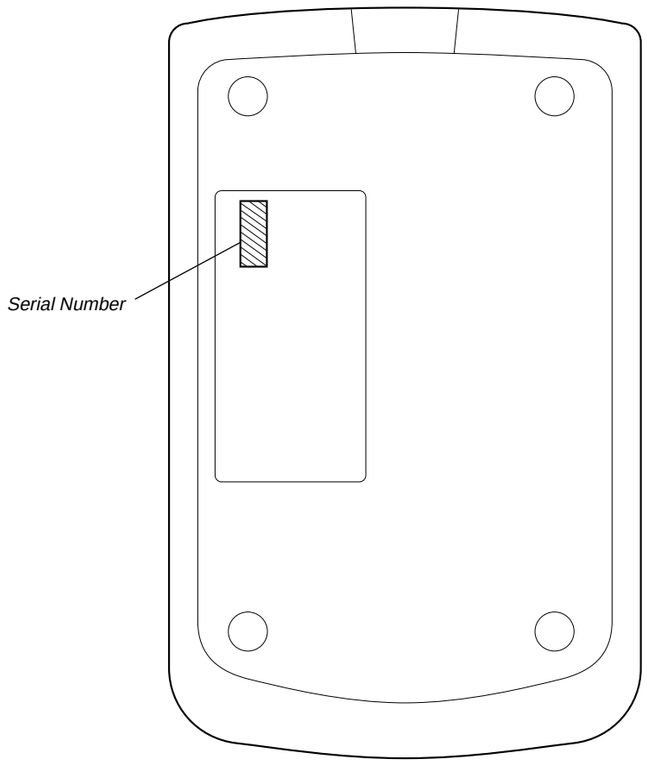


TABLE OF CONTENTS

1. DISCRIMINATION 1

2. DIAGRAMS
2-1. Note for Printed Wiring Boards and Schematic Diagrams 2
2-2. Printed Wiring Board – BASE (RF) Board – 3
2-3. Schematic Diagram – BASE (RF) Board – 5
2-4. Printed Wiring Board – BASE (TEL) Board – 7
2-5. Schematic Diagram – BASE (TEL) Board – 9
2-6. Printed Wiring Board – HAND MAIN Board – 11
2-7. Printed Wiring Board – SWITCH SHEET (H/S KEY) – 13
2-8. Schematic Diagram – HAND MAIN Board – 15

3. EXPLODED VIEWS 17

4. ELECTRICAL PARTS LIST 19

2. DIAGRAMS

2-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:
- ⚬——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

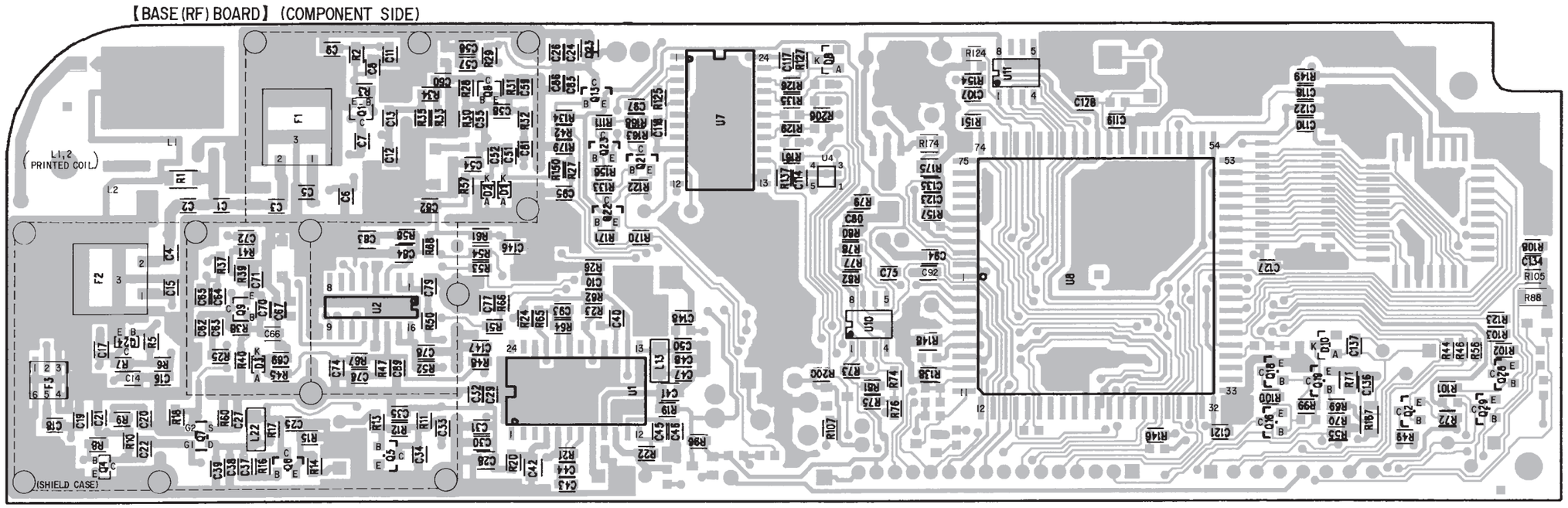
Note on Schematic Diagram:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- –▭–: printed coil.
- ▭ : panel designation.
- B+ : B+ Line.
- ▭ : adjustment for repair.
- Power voltages are dc 9 V and fed with regulated dc power supply from DC IN 9 V jack (J1) on the BASE (TEL) board, dc 12 V and fed with regulated dc power supply from TEL LINE jack (J3) on the BASE (TEL) board with 100 Ω in series, and dc 3.6 V and fed with regulated dc power supply from battery terminal on the HAND MAIN board.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : PHONE ON
  ( ) : PHONE OFF
  ⟨⟨ ⟩⟩ : Charge (Spare battery)
  ✻ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ▷ : RX
  ▶ : TX
  ◤ : bell

2-2. PRINTED WIRING BOARD – BASE (RF) Board –

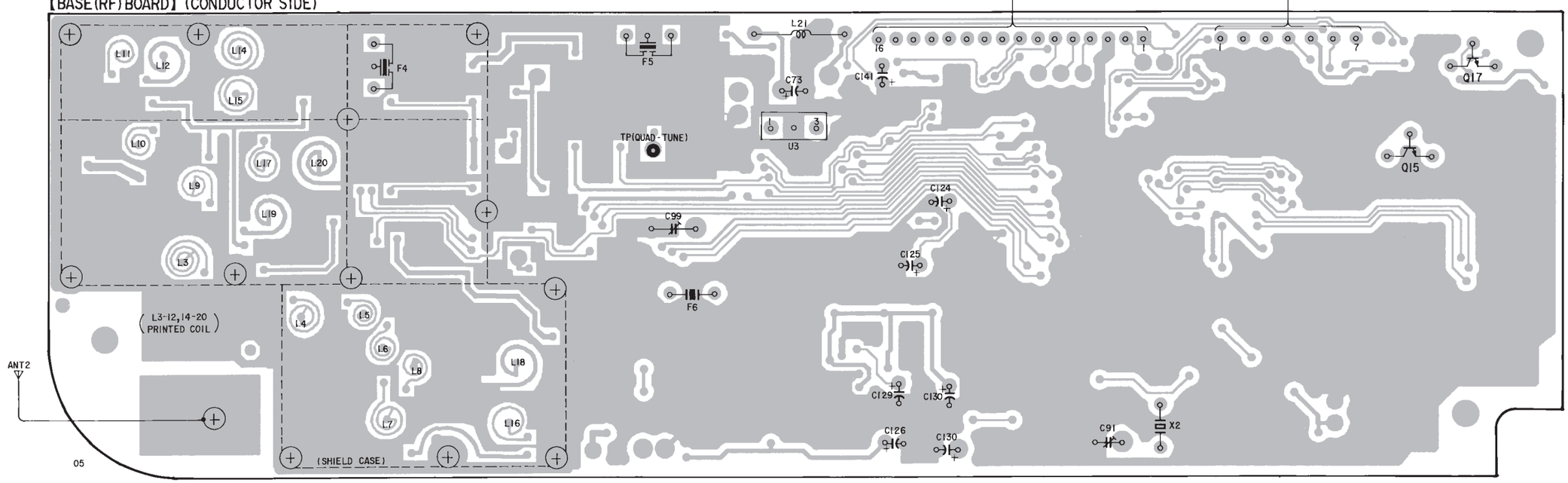
• **Semiconductor Location**

Ref. No.	Location
D1	B-5
D2	B-5
D3	C-3
D8	A-7
D10	C-11
Q1	A-4
Q2	D-11
Q4	D-2
Q5	D-4
Q6	D-3
Q7	D-2
Q8	A-5
Q9	C-3
Q13	A-5
Q15	F-11
Q16	D-10
Q17	F-12
Q18	C-10
Q19	C-11
Q21	B-6
Q22	B-5
Q23	B-5
Q24	C-2
Q28	C-12
Q29	D-12
U1	D-5
U2	C-4
U3	F-7
U4	B-7
U7	B-6
U8	C-9
U10	C-7
U11	A-8

【BASE(RF)BOARD】(COMPONENT SIDE)

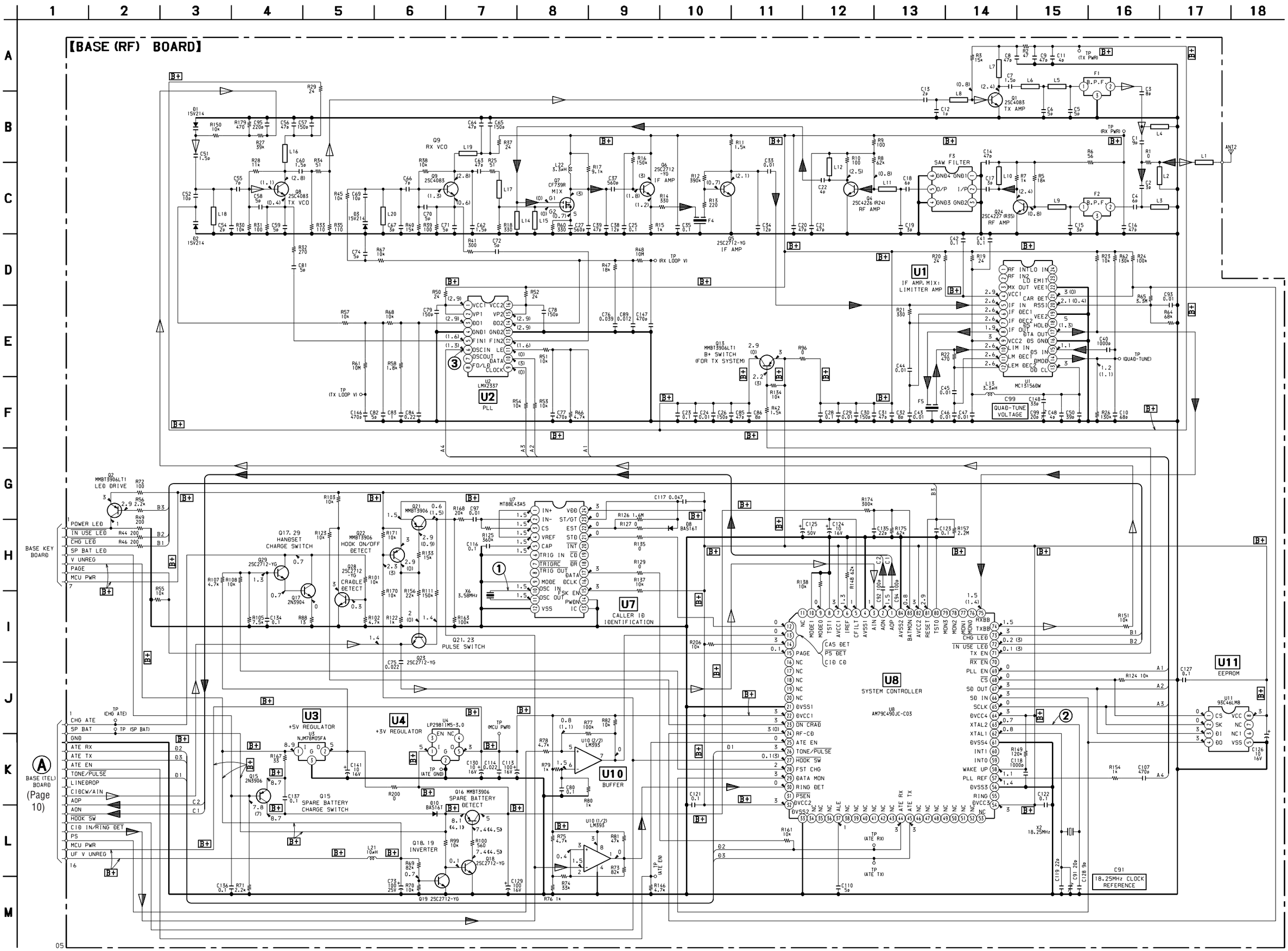


【BASE(RF)BOARD】(CONDUCTOR SIDE)

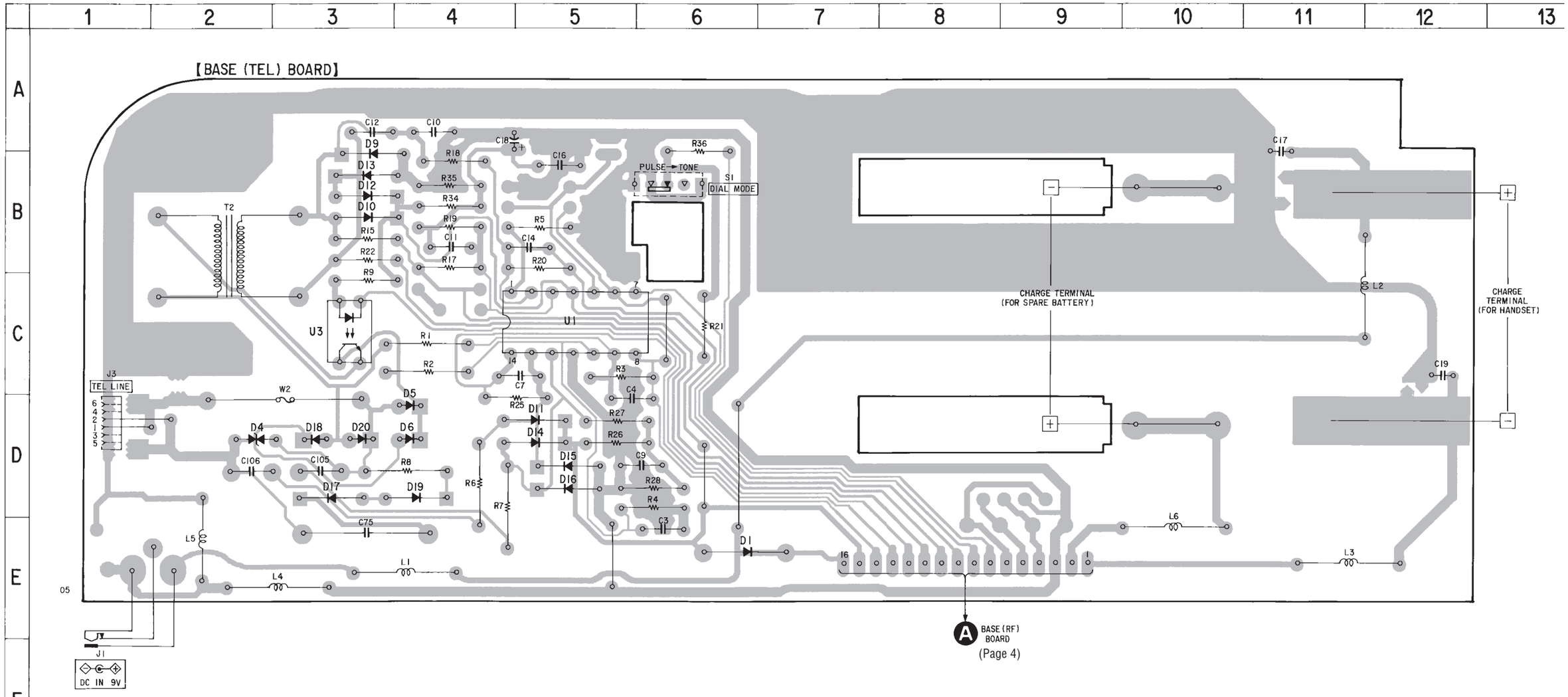


2-3. SCHEMATIC DIAGRAM – BASE (RF) Board – • See page 14 for Waveforms.

【BASE (RF) BOARD】



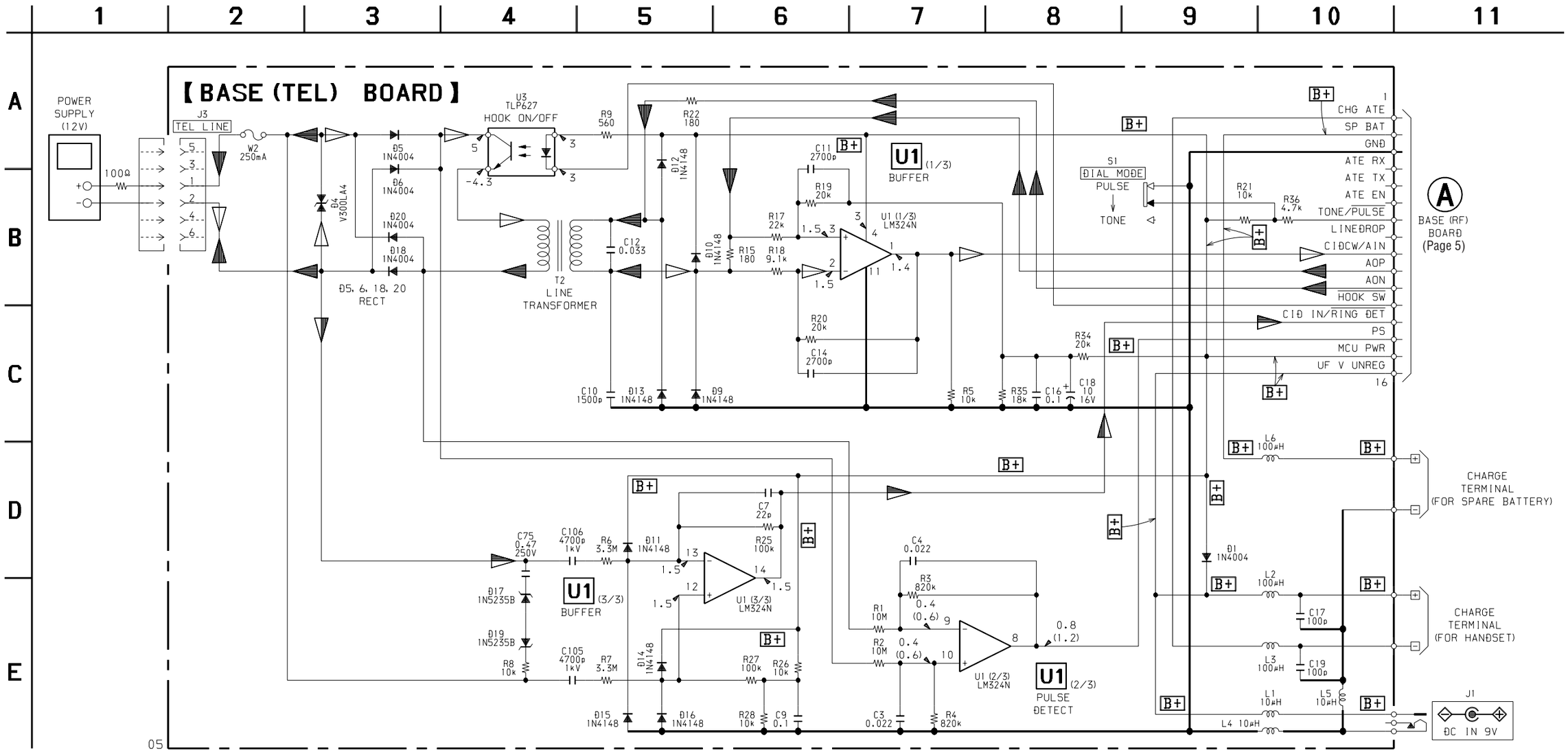
2-4. PRINTED WIRING BOARD – BASE (TEL) Board –



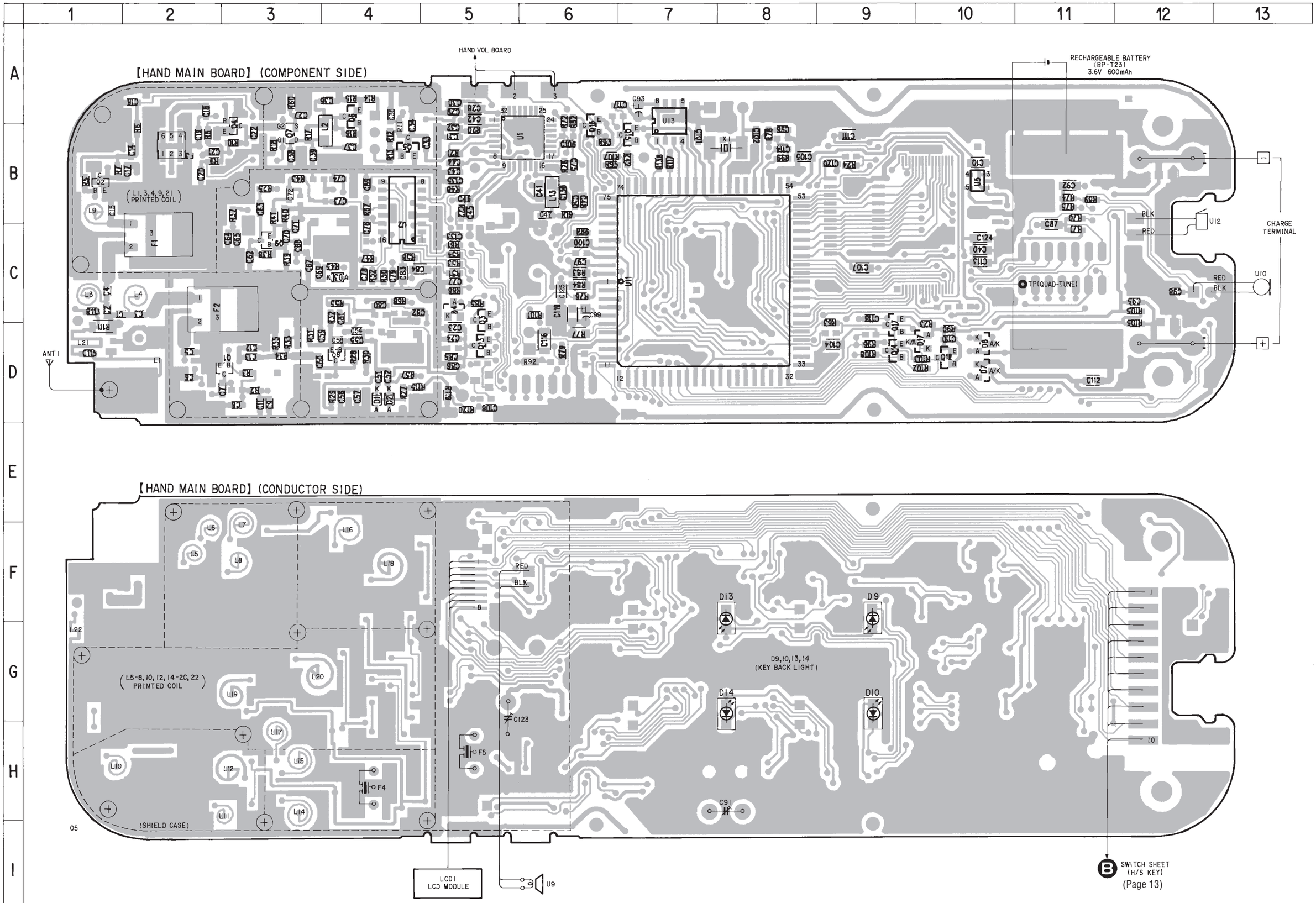
- **Semiconductor Location**

Ref. No.	Location
D1	E-6
D4	D-2
D5	D-4
D6	D-4
D9	B-3
D10	B-3
D11	D-5
D12	B-3
D13	B-3
D14	D-5
D15	D-5
D16	D-5
D17	D-3
D18	D-3
D19	D-4
D20	D-3
U1	C-5
U3	C-3

2-5. SCHEMATIC DIAGRAM – BASE (TEL) Baord –



2-6. PRINTED WIRING BOARD – HAND MAIN Board –



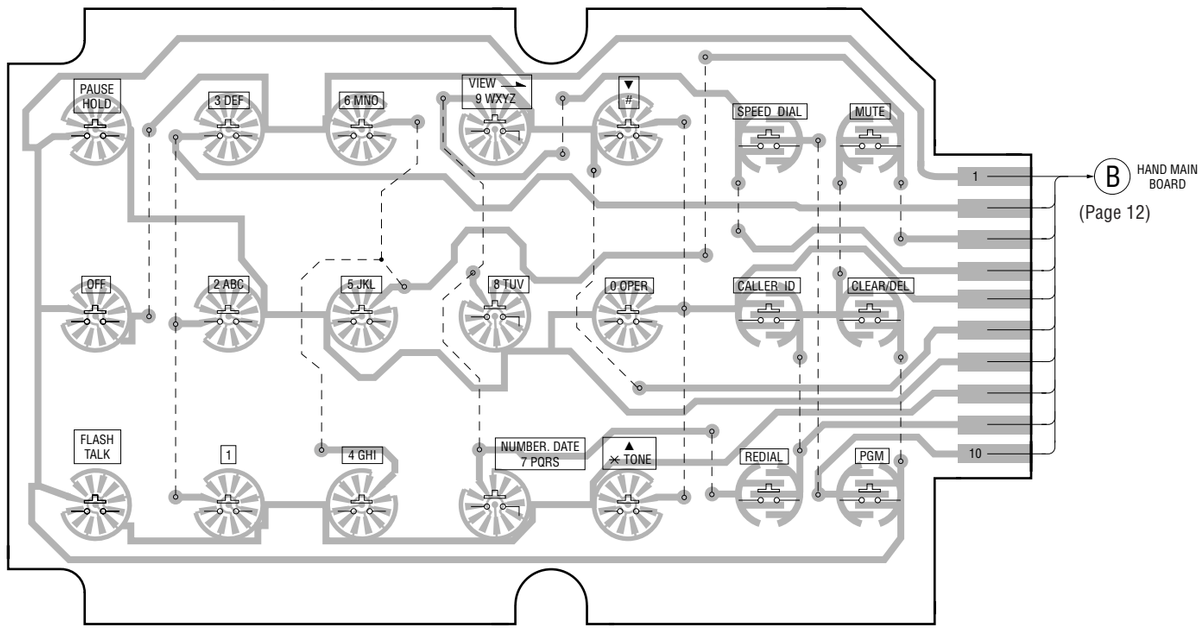
• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D1	D-4	Q6	A-4
D2	D-4	Q7	B-3
D3	C-4	Q8	D-4
D4	C-5	Q9	C-3
D7	D-10	Q12	D-10
D8	D-10	Q13	D-5
D9	F-9	Q14	D-9
D10	G-9	Q15	B-7
D13	F-8	Q16	B-6
D14	G-8	Q17	D-9
D17	D-10		
		U1	B-6
Q1	D-3	U2	B-4
Q2	B-1	U5	B-10
Q3	C-5	U11	C-7
Q4	A-3	U13	A-7
Q5	B-4		

2-7. PRINTED WIRING BOARD – SWITCH SHEET (H/S KEY) –

Note: SWITCH SHEET (H/S KEY) is mounted on the HAND MAIN Baord (Conductor side).

SWITCH SHEET (H/S KEY)

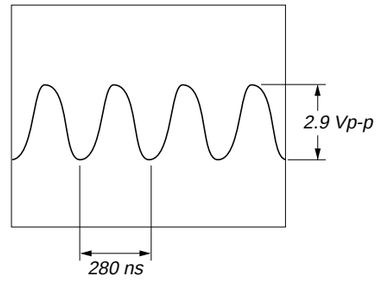


○– – –○ : other layer pattern.

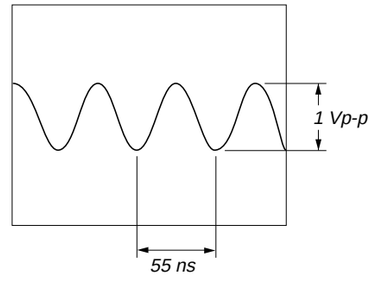
• **Waveforms**

– BASE (RF) Board –

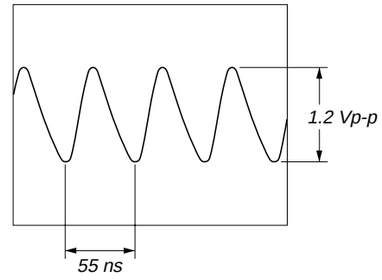
❶ U7 ⑩ (OSC)



❷ U8 ⑬ (XTAL2)

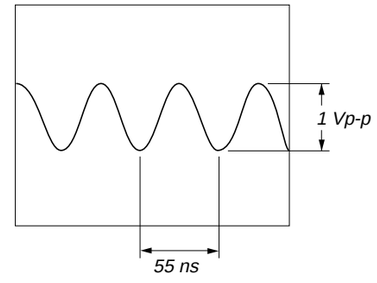


❸ U2 ⑥ (OSC IN)

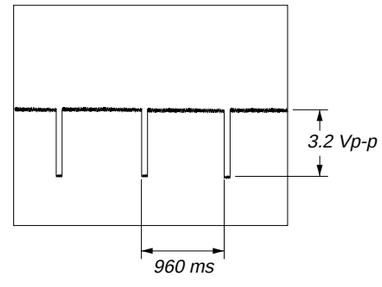


– HAND (MAIN) Board –

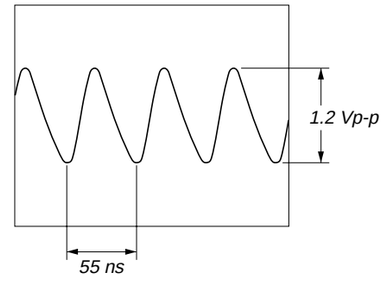
❶ U11 ⑫ (XTAL1) (PHONE ON)



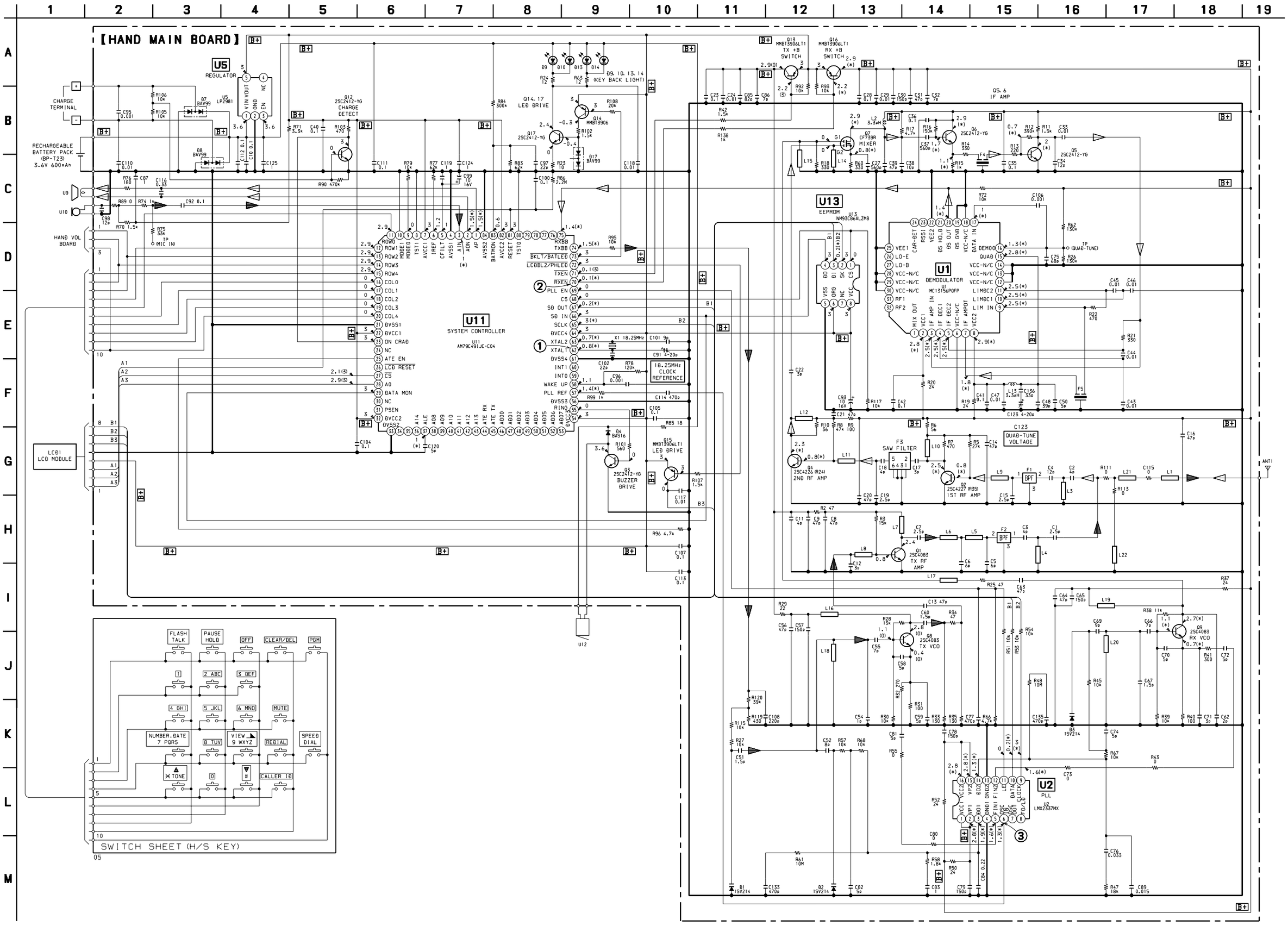
❷ U11 ⑩ ($\overline{\text{RXEN}}$) (PHONE ON)



❸ U2 ⑥ (OSC IN) (PHONE ON)



2-8. SCHEMATIC DIAGRAM – HAND MAIN Board – • See page 14 for Waveforms.

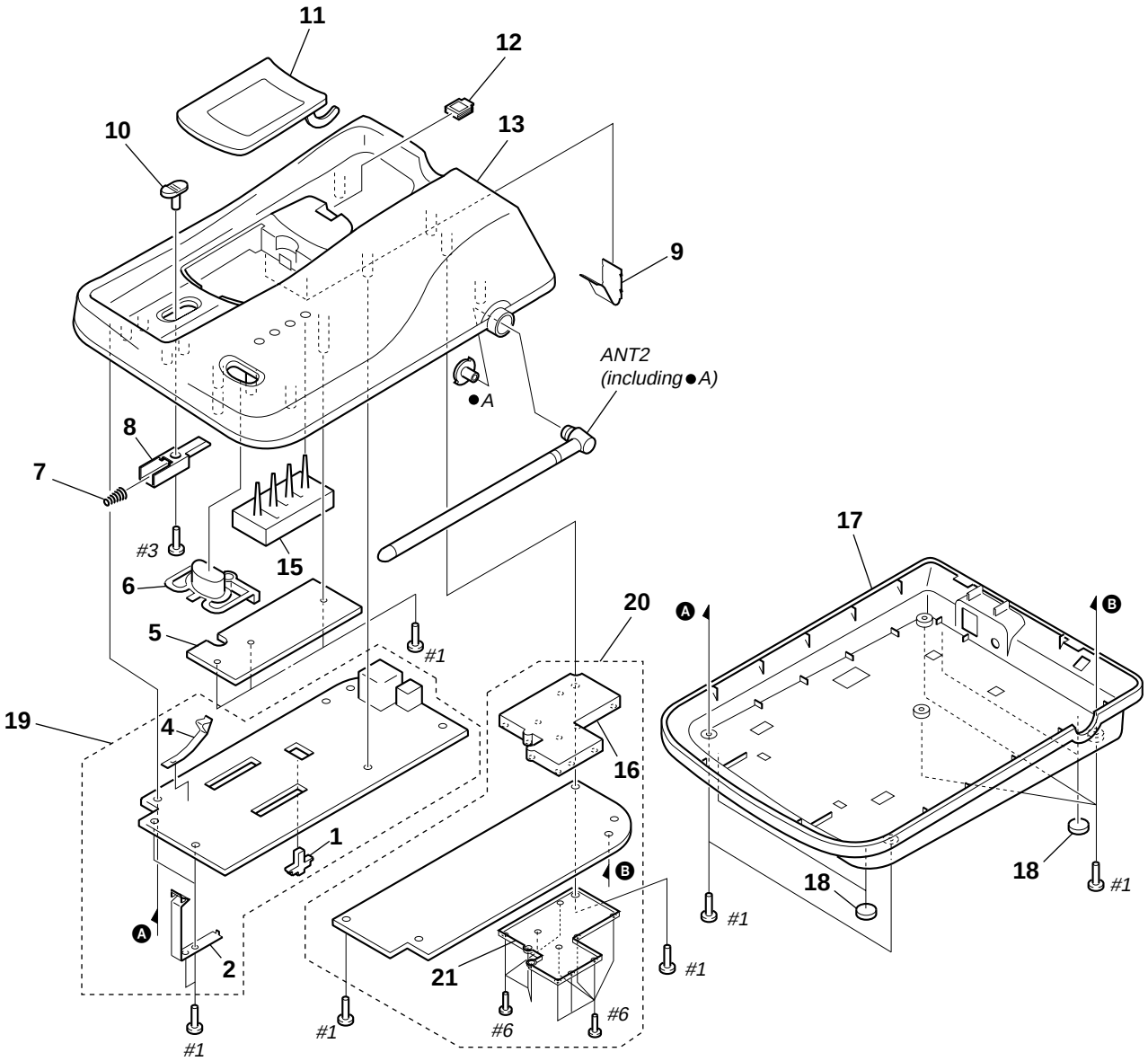


3. EXPLODED VIEWS

NOTE:

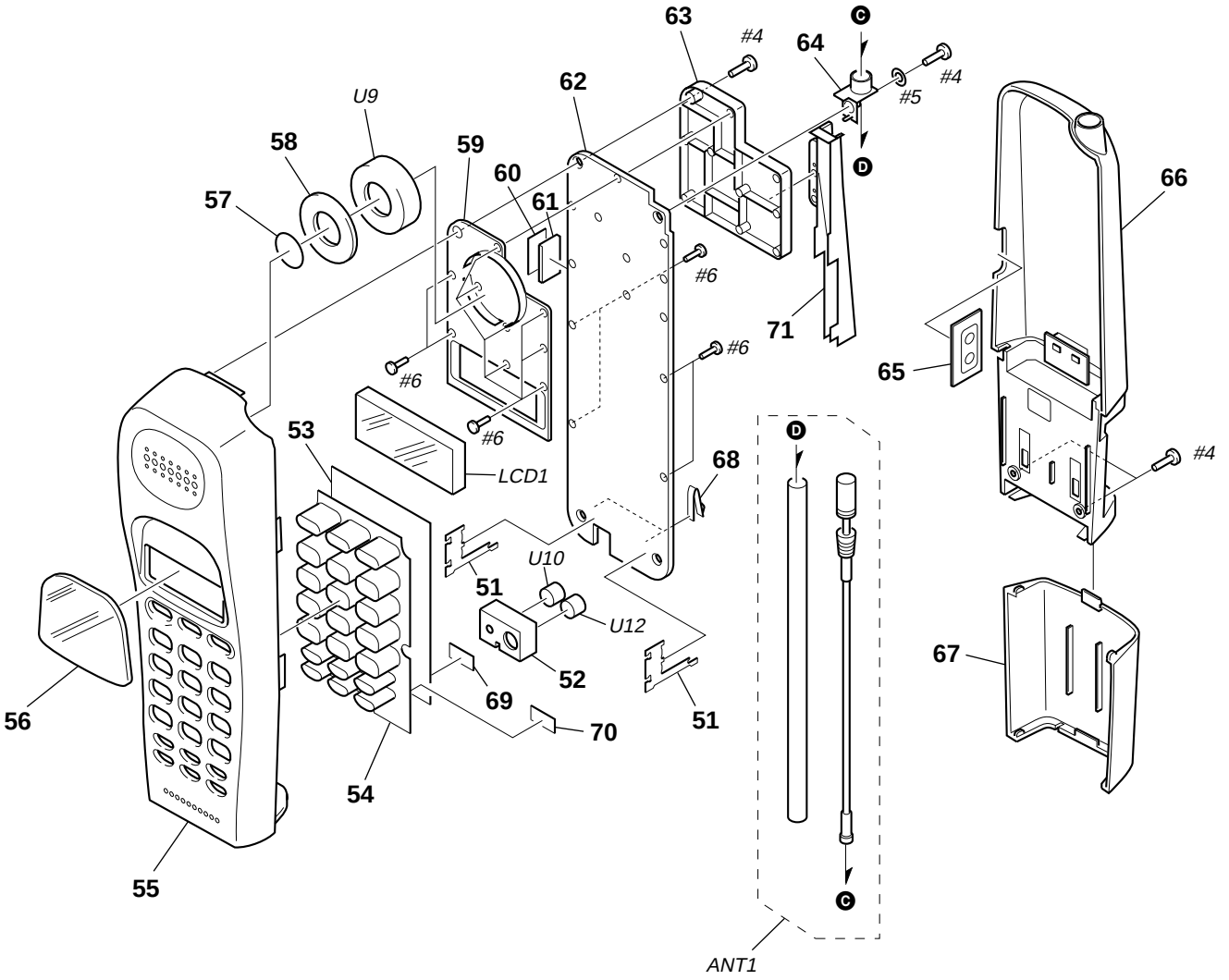
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

3-1. BASE UNIT SECTION



Ref. No.	Part No.	Description	Remark
1	3-023-846-01	KNOB (SLIDE)	
2	3-011-414-01	TERMINAL (CHARGE: BASE)	
4	3-011-486-01	TERMINAL (CHARGE: BATT)	
* 5	1-664-927-11	BASE KEY BOARD	
6	3-011-411-01	BUTTON (PAGE)	
7	3-012-608-01	SPRING	
8	3-011-484-01	CLAW, LOCK	
9	3-011-482-01	SPRING, LEAF	
10	3-011-483-01	KNOB (BATTERY CASE LID)	
11	3-011-408-01	LID (BASE), BATTERY CASE	
12	3-011-485-01	HOOK	
13	3-035-554-01	CABINET (UPPER), BASE	
15	3-011-412-01	LENS (LED)	
* 16	3-011-466-01	CASE (BASE), SHIELD	
17	3-035-555-01	CABINET (LOWER), BASE	
18	3-383-270-01	FOOT, RUBBER	
* 19	A-3672-693-A	BASE (TEL) BOARD, COMPLETE	
* 20	A-3672-694-A	BASE (RF) BOARD, COMPLETE	
* 21	3-039-698-01	CASE (LOWER), SHIELD	
ANT2	1-501-999-11	ANTENNA	

3-2. HANDSET SECTION



Ref. No.	Part No.	Description	Remark
51	3-012-338-01	TERMINAL (CHARGE: H/S)	
52	3-012-335-01	HOLDER (MIC)	
53	1-771-696-11	SWITCH, SHEET (H/S KEY)	
54	1-771-038-11	SWITCH, RUBBER KEY (H/S KEY)	
55	3-012-317-01	CABINET (FRONT), HAND	
56	3-012-328-01	PANEL	
57	3-012-611-01	SHEET (RECEIVER)	
58	3-371-005-01	GASKET (RECEIVER) (TWN)	
59	3-012-336-01	CASE (FRONT), SHIELD	
60	1-771-041-11	SWITCH, SHEET (VOL+/-) (S1, S2)	
61	1-665-380-11	VOLUME KEY BOARD	
* 62	A-3672-695-A	HAND MAIN BOARD, COMPLETE	
* 63	3-012-337-01	CASE (REAR), SHIELD	

Ref. No.	Part No.	Description	Remark
* 64	3-012-329-01	HOLDER (ANTENNA)	
65	1-771-037-11	SWITCH, RUBBER KEY (VOL)	
66	3-012-318-01	CABINET (REAR), HAND	
67	3-012-316-01	LID, BATTERY CASE	
68	3-012-339-01	TERMINAL (BATT: H/S)	
69	3-020-780-01	TAPE, CONDUCTIVE	
70	3-023-378-01	SHEET (PVC)	
71	3-039-699-01	BRACKET, ANTENNA	
ANT1	1-501-914-11	ANTENNA	
LCD1	1-801-718-11	LCD MODULE	
U9	1-505-593-11	SPEAKER (2.8cm)	
U10	1-542-260-31	MICROPHONE, ELECTRET CONDENSER	
U12	1-505-594-11	BUZZER	

4. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-3672-694-A	BASE (RF) BOARD, COMPLETE			
		**********			
*	3-011-466-01	CASE (BASE) , SHIELD			
	7-685-104-19	SCREW +BTP	2X6	TYPE2	
		< CAPACITOR >			
C1	1-162-914-11	CERAMIC CHIP	9PF	0.5PF	50V
C2	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C3	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V
C4	1-162-911-11	CERAMIC CHIP	6PF	0.5PF	50V
C5	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C6	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C7	1-162-906-11	CERAMIC CHIP	1.5PF	0.25PF	50V
C8	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C9	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C10	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C11	1-162-909-11	CERAMIC CHIP	4PF	0.25PF	50V
C12	1-162-905-11	CERAMIC CHIP	1PF	0.25PF	50V
C13	1-162-907-11	CERAMIC CHIP	2PF	0.25PF	50V
C14	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C15	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C16	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C17	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C18	1-162-911-11	CERAMIC CHIP	6PF	0.5PF	50V
C19	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C20	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C21	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C22	1-162-909-11	CERAMIC CHIP	4PF	0.25PF	50V
C23	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C24	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C25	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C26	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C27	1-164-363-11	CERAMIC CHIP	560PF	5%	50V
C28	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C29	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C30	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C31	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C32	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V
C33	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C34	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C35	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C37	1-164-363-11	CERAMIC CHIP	560PF	5%	50V
C38	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C39	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C40	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C41	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C42	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C43	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C44	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C45	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C46	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C47	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C48	1-162-909-11	CERAMIC CHIP	4PF	0.25PF	50V
C50	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C51	1-162-906-11	CERAMIC CHIP	1.5PF	0.25PF	50V
C52	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C54	1-162-907-11	CERAMIC CHIP	2PF	0.25PF	50V
C55	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V
C56	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C57	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C58	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C59	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C60	1-162-906-11	CERAMIC CHIP	1.5PF	0.25PF	50V
C62	1-162-906-11	CERAMIC CHIP	1.5PF	0.25PF	50V
C63	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C64	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C65	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C66	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V
C67	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C69	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C70	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C71	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C72	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C73	1-104-665-11	ELECT	100uF	20%	25V
C74	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C75	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C76	1-162-587-11	CERAMIC CHIP	0.039uF	10%	25V
C77	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C78	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C79	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C80	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C81	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C82	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C83	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C84	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C85	1-162-923-11	CERAMIC CHIP	47PF	5%	50V

BASE (RF)

Ref. No.	Part No.	Description			Remark
C86	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V
C89	1-163-022-00	CERAMIC CHIP	0.012uF	10%	50V
C91	1-141-374-11	CAP, TRIMMER	20PF		
C92	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C93	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C94	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C95	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C97	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C99	1-141-374-11	CAP, TRIMMER	20PF		
C107	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C110	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C113	1-126-933-11	ELECT	100uF	20%	16V
C114	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C116	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C117	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C118	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C119	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C121	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C122	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C123	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C124	1-126-791-11	ELECT	10uF	20%	16V
C125	1-126-960-11	ELECT	1uF	20%	50V
C126	1-126-791-11	ELECT	10uF	20%	16V
C127	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C128	1-162-914-11	CERAMIC CHIP	9PF	0.5PF	50V
C129	1-126-933-11	ELECT	100uF	20%	16V
C130	1-126-791-11	ELECT	10uF	20%	16V
C134	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C135	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C136	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C137	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C141	1-126-791-11	ELECT	10uF	20%	16V
C146	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C147	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C148	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
		< DIODE >			
D1	8-719-820-71	DIODE 1SV214			
D2	8-719-820-71	DIODE 1SV214			
D3	8-719-820-71	DIODE 1SV214			
D8	8-719-047-37	DIODE BAS16			
D10	8-719-047-37	DIODE BAS16			
		< FILTER/ OSCILLATOR >			
F1	1-233-888-11	FILTER, BAND PASS			
F2	1-233-889-11	FILTER, BAND PASS			
F3	1-767-454-11	FILTER, SAW			
F4	1-567-107-71	FILTER, CERAMIC			
F5	1-760-785-11	FILTER, CERAMIC			
F6	1-567-487-11	OSCILLATOR, CERAMIC (3.58MHz)			
		< COIL >			
L13	1-412-599-11	INDUCTOR CHIP	3.3uH		
L21	1-408-117-00	INDUCTOR	10uH		
L22	1-412-599-11	INDUCTOR CHIP	3.3uH		

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q1	8-729-923-31	TRANSISTOR	2SC4083-P		
Q2	8-729-026-07	TRANSISTOR	MMBT3906LT1		
Q4	8-729-016-85	TRANSISTOR	2SC4226 (R24)		
Q5	8-729-230-49	TRANSISTOR	2SC2712-YG		
Q6	8-729-230-49	TRANSISTOR	2SC2712-YG		
Q7	8-729-041-22	FET	CF739R		
Q8	8-729-923-31	TRANSISTOR	2SC4083-P		
Q9	8-729-923-31	TRANSISTOR	2SC4083-P		
Q13	8-729-026-07	TRANSISTOR	MMBT3906LT1		
Q15	8-729-113-08	TRANSISTOR	2N3906		
Q16	8-729-026-07	TRANSISTOR	MMBT3906LT1		
Q17	8-729-139-04	TRANSISTOR	2N3904		
Q18	8-729-230-49	TRANSISTOR	2SC2712-YG		
Q19	8-729-230-49	TRANSISTOR	2SC2712-YG		
Q21	8-729-026-07	TRANSISTOR	MMBT3906LT1		
Q22	8-729-026-07	TRANSISTOR	MMBT3906LT1		
Q23	8-729-230-49	TRANSISTOR	2SC2712-YG		
Q24	8-729-023-47	TRANSISTOR	2SC4227 (R35)		
Q28	8-729-230-49	TRANSISTOR	2SC2712-YG		
Q29	8-729-230-49	TRANSISTOR	2SC2712-YG		
		< RESISTOR >			
R1	1-216-296-00	METAL CHIP	0	5%	1/8W
R2	1-216-805-11	METAL CHIP	47	5%	1/16W
R3	1-216-835-11	METAL CHIP	15K	5%	1/16W
R5	1-216-836-11	METAL CHIP	18K	5%	1/16W
R6	1-216-806-11	RES, CHIP	56	5%	1/16W
R7	1-216-821-11	METAL CHIP	1K	5%	1/16W
R8	1-218-890-11	RES, CHIP	62K	5%	1/16W
R9	1-216-809-11	METAL CHIP	100	5%	1/16W
R10	1-216-809-11	METAL CHIP	100	5%	1/16W
R11	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R12	1-216-852-11	METAL CHIP	390K	5%	1/16W
R13	1-216-813-11	METAL CHIP	220	5%	1/16W
R14	1-216-815-11	METAL CHIP	330	5%	1/16W
R15	1-216-821-11	METAL CHIP	1K	5%	1/16W
R16	1-216-847-11	METAL CHIP	150K	5%	1/16W
R17	1-218-345-11	RES, CHIP	9.1K	5%	1/16W
R18	1-216-815-11	METAL CHIP	330	5%	1/16W
R19	1-218-653-11	METAL CHIP	24	0.5%	1/16W
R20	1-218-653-11	METAL CHIP	24	0.5%	1/16W
R21	1-216-815-11	METAL CHIP	330	5%	1/16W
R22	1-216-817-11	METAL CHIP	470	5%	1/16W
R23	1-216-833-11	METAL CHIP	10K	5%	1/16W
R24	1-216-845-11	METAL CHIP	100K	5%	1/16W
R25	1-220-151-11	RES, CHIP	51	5%	1/16W
R26	1-218-332-11	RES, CHIP	130K	5%	1/16W
R27	1-218-730-11	METAL CHIP	39K	0.5%	1/16W
R28	1-218-717-11	METAL CHIP	11K	0.5%	1/16W
R29	1-218-653-11	METAL CHIP	24	0.5%	1/16W
R30	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R31	1-218-668-11	METAL CHIP	100	0.5%	1/16W
R32	1-216-814-11	METAL CHIP	270	5%	1/16W
R33	1-218-824-11	RES, CHIP	110	5%	1/16W
R34	1-220-151-11	RES, CHIP	51	5%	1/16W
R35	1-218-824-11	RES, CHIP	110	5%	1/16W

Ref. No.	Part No.	Description			Remark
R37	1-218-653-11	METAL CHIP	24	0.5%	1/16W
R38	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R39	1-218-668-11	METAL CHIP	100	0.5%	1/16W
R40	1-218-720-11	METAL CHIP	15K	0.5%	1/16W
R41	1-218-288-11	RES, CHIP	300	5%	1/16W
R42	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R44	1-218-287-11	RES, CHIP	200	5%	1/16W
R45	1-216-833-11	METAL CHIP	10K	5%	1/16W
R46	1-218-287-11	RES, CHIP	200	5%	1/16W
R47	1-216-836-11	METAL CHIP	18K	5%	1/16W
R48	1-219-570-11	METAL CHIP	10M	5%	1/16W
R49	1-218-287-11	RES, CHIP	200	5%	1/16W
R50	1-218-653-11	METAL CHIP	24	0.5%	1/16W
R51	1-216-833-11	METAL CHIP	10K	5%	1/16W
R52	1-218-653-11	METAL CHIP	24	0.5%	1/16W
R53	1-216-833-11	METAL CHIP	10K	5%	1/16W
R54	1-216-833-11	METAL CHIP	10K	5%	1/16W
R55	1-216-833-11	METAL CHIP	10K	5%	1/16W
R56	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R57	1-216-833-11	METAL CHIP	10K	5%	1/16W
R58	1-216-824-11	METAL CHIP	1.8K	5%	1/16W
R60	1-216-815-11	METAL CHIP	330	5%	1/16W
R61	1-219-570-11	METAL CHIP	10M	5%	1/16W
R62	1-218-332-11	RES, CHIP	130K	5%	1/16W
R64	1-216-843-11	METAL CHIP	68K	5%	1/16W
R65	1-216-863-11	RES, CHIP	3.3M	5%	1/16W
R66	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R67	1-216-833-11	METAL CHIP	10K	5%	1/16W
R68	1-216-833-11	METAL CHIP	10K	5%	1/16W
R69	1-216-844-11	METAL CHIP	82K	5%	1/16W
R70	1-216-833-11	METAL CHIP	10K	5%	1/16W
R71	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R72	1-218-668-11	METAL CHIP	100	0.5%	1/16W
R73	1-216-844-11	METAL CHIP	82K	5%	1/16W
R74	1-216-839-11	METAL CHIP	33K	5%	1/16W
R75	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R76	1-216-821-11	METAL CHIP	1K	5%	1/16W
R77	1-216-845-11	METAL CHIP	100K	5%	1/16W
R78	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R79	1-216-821-11	METAL CHIP	1K	5%	1/16W
R80	1-216-821-11	METAL CHIP	1K	5%	1/16W
R81	1-216-841-11	METAL CHIP	47K	5%	1/16W
R82	1-216-833-11	METAL CHIP	10K	5%	1/16W
R88	1-247-786-11	CARBON	13	5%	1/4W
R96	1-216-864-11	METAL CHIP	0	5%	1/16W
R99	1-216-833-11	METAL CHIP	10K	5%	1/16W
R100	1-216-818-11	METAL CHIP	560	5%	1/16W
R101	1-216-833-11	METAL CHIP	10K	5%	1/16W
R102	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R103	1-216-833-11	METAL CHIP	10K	5%	1/16W
R105	1-218-344-11	RES, CHIP	7.5K	5%	1/16W
R107	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R108	1-216-833-11	METAL CHIP	10K	5%	1/16W
R111	1-216-847-11	METAL CHIP	150K	5%	1/16W
R122	1-216-821-11	METAL CHIP	1K	5%	1/16W
R123	1-216-833-11	METAL CHIP	10K	5%	1/16W
R124	1-216-833-11	METAL CHIP	10K	5%	1/16W
R125	1-202-929-11	RES, CHIP	360K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R126	1-220-869-11	RES, CHIP	1.6M	5%	1/16W
R127	1-216-864-11	METAL CHIP	0	5%	1/16W
R129	1-216-864-11	METAL CHIP	0	5%	1/16W
R133	1-216-835-11	METAL CHIP	15K	5%	1/16W
R134	1-216-833-11	METAL CHIP	10K	5%	1/16W
R135	1-216-864-11	METAL CHIP	0	5%	1/16W
R137	1-216-833-11	METAL CHIP	10K	5%	1/16W
R138	1-216-833-11	METAL CHIP	10K	5%	1/16W
R146	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R148	1-216-694-11	METAL CHIP	62K	0.5%	1/10W
R149	1-216-846-11	METAL CHIP	120K	5%	1/16W
R150	1-216-833-11	METAL CHIP	10K	5%	1/16W
R151	1-216-833-11	METAL CHIP	10K	5%	1/16W
R154	1-216-821-11	METAL CHIP	1K	5%	1/16W
R156	1-216-837-11	METAL CHIP	22K	5%	1/16W
R157	1-216-861-11	METAL CHIP	2.2M	5%	1/16W
R161	1-216-833-11	METAL CHIP	10K	5%	1/16W
R163	1-216-845-11	METAL CHIP	100K	5%	1/16W
R167	1-216-803-11	METAL CHIP	33	5%	1/16W
R168	1-218-292-11	RES, CHIP	20K	5%	1/16W
R170	1-216-833-11	METAL CHIP	10K	5%	1/16W
R171	1-216-833-11	METAL CHIP	10K	5%	1/16W
R174	1-218-763-11	METAL CHIP	300K	0.5%	1/10W
R175	1-216-694-11	METAL CHIP	62K	0.5%	1/10W
R179	1-216-817-11	METAL CHIP	470	5%	1/16W
R200	1-216-864-11	METAL CHIP	0	5%	1/16W
R206	1-216-833-11	METAL CHIP	10K	5%	1/16W

< IC >

U1	8-759-459-06	IC	MC13156DWR2
U2	8-759-459-05	IC	LMX2337MX
U3	8-759-701-56	IC	NJM78M05FA
U4	8-759-459-07	IC	LP2981IM5-3.0
U7	8-759-398-67	IC	MT8843ASR
U8	8-759-463-29	IC	AM79C490JC-C03
U10	8-759-436-17	IC	LM393MX
U11	8-759-540-48	IC	NM93C46LM8-ID910B

< VIBRATOR >

X2	1-767-458-11	VIBRATOR, CRYSTAL (18.25MHz)

****

*	A-3672-693-A	BASE (TEL) BOARD, COMPLETE
		**********
	3-011-414-01	TERMINAL (CHARGE: BASE)
	3-011-486-01	TERMINAL (CHARGE: BATT)
	3-023-846-01	KNOB (SLIDE)

< CAPACITOR >

C3	1-162-843-11	CERAMIC	0.022uF	20%	16V
C4	1-162-843-11	CERAMIC	0.022uF	20%	16V
C7	1-164-027-11	CERAMIC CHIP	22PF	5%	50V
C9	1-161-772-11	CERAMIC	0.1uF	10%	25V
C10	1-164-087-11	CERAMIC	0.0015uF	10%	50V
C11	1-162-832-11	CERAMIC	0.0027uF	10%	
C12	1-161-057-00	CERAMIC	0.033uF	10%	50V
C14	1-162-832-11	CERAMIC	0.0027uF	10%	
C16	1-161-772-11	CERAMIC	0.1uF	10%	25V

BASE (TEL) | HAND MAIN

Ref. No.	Part No.	Description			Remark
C17	1-164-085-11	CERAMIC	0.001uF	10%	50V
C17	1-162-927-11	CERAMIC	100PF	5%	50V
C18	1-126-791-11	ELECT	10uF	20%	16V
C19	1-162-927-11	CERAMIC	100PF	5%	50V
C75	1-136-193-11	FILM	0.47uF	5%	250V
C105	1-104-574-11	CERAMIC	0.0047uF	10%	1KV
C106	1-104-574-11	CERAMIC	0.0047uF	10%	1KV
		< DIODE >			
D1	8-719-911-55	DIODE U05G			
D4	1-801-730-11	VARISTOR			
D5	8-719-911-55	DIODE U05G			
D6	8-719-911-55	DIODE U05G			
D9	8-719-911-19	DIODE 1SS119			
D10	8-719-911-19	DIODE 1SS119			
D11	8-719-911-19	DIODE 1SS119			
D12	8-719-911-19	DIODE 1SS119			
D13	8-719-911-19	DIODE 1SS119			
D14	8-719-911-19	DIODE 1SS119			
D15	8-719-911-19	DIODE 1SS119			
D16	8-719-911-19	DIODE 1SS119			
D17	8-719-921-63	DIODE MTZJ-7.5B			
D18	8-719-911-55	DIODE U05G			
D19	8-719-921-63	DIODE MTZJ-7.5B			
D20	8-719-911-55	DIODE U05G			
		< JACK >			
J1	1-779-215-11	JACK, DC (DC IN 9V)			
J3	1-565-999-11	JACK, MODULAR 2P (TEL LINE)			
		< COIL >			
L1	1-412-605-11	INDUCTOR	10uH		
L2	1-408-789-21	INDUCTOR	100uH		
L3	1-408-789-21	INDUCTOR	100uH		
L4	1-412-605-11	INDUCTOR	10uH		
L5	1-412-605-11	INDUCTOR	10uH		
L6	1-408-789-21	INDUCTOR	100uH		
		< RESISTOR >			
R1	1-208-288-11	METAL	10M	5%	1/4W
R2	1-208-288-11	METAL	10M	5%	1/4W
R3	1-247-901-11	CARBON	820K	5%	1/4W
R4	1-247-901-11	CARBON	820K	5%	1/4W
R5	1-247-855-11	CARBON	10K	5%	1/4W
R6	1-216-863-11	METAL	3.3M	5%	1/16W
R7	1-216-863-11	METAL	3.3M	5%	1/16W
R8	1-247-855-11	CARBON	10K	5%	1/4W
R9	1-247-825-11	CARBON	560	5%	1/4W
R15	1-249-408-11	CARBON	180	5%	1/4W
R17	1-247-863-11	CARBON	22K	5%	1/4W
R18	1-247-854-11	CARBON	9.1K	5%	1/4W
R19	1-247-862-11	CARBON	20K	5%	1/4W
R20	1-247-862-11	CARBON	20K	5%	1/4W
R21	1-247-855-11	CARBON	10K	5%	1/4W
R22	1-249-408-11	CARBON	180	5%	1/4W
R25	1-247-879-11	CARBON	100K	5%	1/4W
R26	1-247-855-11	CARBON	10K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R27	1-247-879-11	CARBON	100K	5%	1/4W
R28	1-247-855-11	CARBON	10K	5%	1/4W
R34	1-247-862-11	CARBON	20K	5%	1/4W
R35	1-249-432-11	CARBON	18K	5%	1/4W
R36	1-247-847-11	CARBON	4.7K	5%	1/4W
		< SWITCH >			
S1	1-571-377-11	SWITCH, SLIDE (DIAL MODE)			
		< TRANSFORMER >			
T2	1-431-208-11	TRANSFORMER, LINE			
		< IC/ PHOTO COUPLER >			
U1	8-759-912-77	IC LM324N			
U3	8-719-821-66	PHOTO COUPLER TLP627			
		< FUSE >			
W2	1-533-842-11	FUSE (250mA)			

****

*	A-3672-695-A	HAND MAIN BOARD, COMPLETE			
		**********			
	1-771-696-11	SWITCH, SHEET (H/S KEY)			
	3-012-335-01	HOLDER (MIC)			
*	3-012-336-01	CASE (FRONT) , SHIELD			
*	3-012-337-01	CASE (REAR) , SHIELD			
	3-012-338-01	TERMINAL (CHARGE: H/S)			
	3-012-339-01	TERMINAL (BATT: H/S)			
	7-685-105-19	SCREW +P 2X8 TYPE2 NON-SLIT			
		< CAPACITOR/RESISTOR >			
C1	1-162-933-11	CERAMIC CHIP	2.5PF	0.25PF	50V
C2	1-162-909-11	CERAMIC CHIP	4PF	0.25PF	50V
C3	1-162-909-11	CERAMIC CHIP	4PF	0.25PF	50V
C4	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C5	1-162-911-11	CERAMIC CHIP	6PF	0.5PF	50V
C6	1-162-911-11	CERAMIC CHIP	6PF	0.5PF	50V
C7	1-162-933-11	CERAMIC CHIP	2.5PF	0.25PF	50V
C8	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C9	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C10	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C11	1-162-909-11	CERAMIC CHIP	4PF	0.25PF	50V
C12	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C13	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C14	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C15	1-162-933-11	CERAMIC CHIP	2.5PF	0.25PF	50V
C16	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C17	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C18	1-162-909-11	CERAMIC CHIP	4PF	0.25PF	50V
C19	1-162-933-11	CERAMIC CHIP	2.5PF	0.25PF	50V
C20	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C21	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C22	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C23	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C24	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C27	1-164-363-11	CERAMIC CHIP	560PF	5%	50V

Ref. No.	Part No.	Description			Remark
C28	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C29	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C30	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C31	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C32	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V
C33	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C34	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C35	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C36	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C37	1-164-363-11	CERAMIC CHIP	560PF	5%	50V
C38	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C39	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C40	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C41	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C42	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C43	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C44	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C45	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C46	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C47	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C48	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C50	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C51	1-162-906-11	CERAMIC CHIP	1.5PF	0.25PF	50V
C52	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V
C54	1-162-905-11	CERAMIC CHIP	1PF	0.25PF	50V
C55	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V
C56	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C57	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C58	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C59	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C60	1-162-906-11	CERAMIC CHIP	1.5PF	0.25PF	50V
C62	1-162-907-11	CERAMIC CHIP	2PF	0.25PF	50V
C63	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C64	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C65	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C66	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V
C67	1-162-906-11	CERAMIC CHIP	1.5PF	0.25PF	50V
C69	1-162-914-11	CERAMIC CHIP	9PF	0.5PF	50V
C70	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C71	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C72	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C73	1-216-864-11	METAL CHIP	0	5%	1/16W
C74	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C75	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C76	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C77	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C78	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C79	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C80	1-216-864-11	METAL CHIP	0	5%	1/16W
C81	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C82	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C83	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C84	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C85	1-162-926-11	CERAMIC CHIP	82PF	5%	50V
C86	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V
C87	1-164-346-11	CERAMIC CHIP	1uF		16V
C89	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C91	1-141-374-11	CAP, TRIMMER	20PF		
C92	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C93	1-126-791-11	ELECT	10uF	20%	16V
C95	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C96	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C97	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C98	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C99	1-126-791-11	ELECT	10uF	20%	16V
C100	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C101	1-162-914-11	CERAMIC CHIP	9PF	0.5PF	50V
C102	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C104	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C105	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C106	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C107	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C108	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C110	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C111	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C112	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C113	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C114	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C115	1-216-864-11	METAL CHIP	0	5%	1/16W
C116	1-162-568-11	CERAMIC CHIP	0.33uF		25V
C117	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C118	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C119	1-164-346-11	CERAMIC CHIP	1uF		16V
C120	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C123	1-141-374-11	CAP, TRIMMER	20PF		
C124	1-164-346-11	CERAMIC CHIP	1uF		16V
C125	1-164-346-11	CERAMIC CHIP	1uF		16V
C133	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C135	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C136	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
		< DIODE >			
D1	8-719-820-71	DIODE 1SV214			
D2	8-719-820-71	DIODE 1SV214			
D3	8-719-820-71	DIODE 1SV214			
D4	8-719-047-37	DIODE BAS16			
D7	8-719-909-90	DIODE BAV99			
D8	8-719-909-90	DIODE BAV99			
D9	8-719-059-94	DIODE SML-010MT-T86			
D10	8-719-059-94	DIODE SML-010MT-T86			
D13	8-719-059-94	DIODE SML-010MT-T86			
D14	8-719-059-94	DIODE SML-010MT-T86			
D17	8-719-909-90	DIODE BAV99			
		< FILTER >			
F1	1-233-888-11	FILTER, BAND PASS			
F2	1-233-889-11	FILTER, BAND PASS			
F3	1-767-472-11	FILTER, SAW			
F4	1-567-107-71	FILTER, CERAMIC			
F5	1-760-785-11	FILTER, CERAMIC			
		< COIL >			
L2	1-412-599-11	INDUCTOR CHIP 3.3uH			
L13	1-412-599-11	INDUCTOR CHIP 3.3uH			

HAND MAIN

Ref. No.	Part No.	Description			Remark
		< LCD MODULE >			
LCD1	1-801-718-11	LCD MODULE			
		< TRANSISTOR >			
Q1	8-729-923-31	TRANSISTOR	2SC4083-P		
Q2	8-729-023-47	TRANSISTOR	2SC4227 (R35)		
Q3	8-729-230-49	TRANSISTOR	2SC2712-YG		
Q4	8-729-016-85	TRANSISTOR	2SC4226 (R24)		
Q5	8-729-230-49	TRANSISTOR	2SC2712-YG		
Q6	8-729-230-49	TRANSISTOR	2SC2712-YG		
Q7	8-729-041-22	FET	CF739R		
Q8	8-729-923-31	TRANSISTOR	2SC4083-P		
Q9	8-729-923-31	TRANSISTOR	2SC4083-P		
Q12	8-729-230-49	TRANSISTOR	2SC2712-YG		
Q13	8-729-026-07	TRANSISTOR	MMBT3906LT1		
Q14	8-729-026-07	TRANSISTOR	MMBT3906LT1		
Q15	8-729-026-07	TRANSISTOR	MMBT3906LT1		
Q16	8-729-026-07	TRANSISTOR	MMBT3906LT1		
Q17	8-729-230-49	TRANSISTOR	2SC2712-YG		
		< RESISTOR >			
R2	1-216-805-11	METAL CHIP	47	5%	1/16W
R3	1-216-835-11	METAL CHIP	15K	5%	1/16W
R5	1-216-838-11	METAL CHIP	27K	5%	1/16W
R6	1-216-806-11	RES, CHIP	56	5%	1/16W
R7	1-216-817-11	METAL CHIP	470	5%	1/16W
R8	1-216-841-11	METAL CHIP	47K	5%	1/16W
R9	1-216-809-11	METAL CHIP	100	5%	1/16W
R10	1-218-657-11	METAL CHIP	36	0.5%	1/16W
R11	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R12	1-216-852-11	METAL CHIP	390K	5%	1/16W
R13	1-216-813-11	METAL CHIP	220	5%	1/16W
R14	1-216-815-11	METAL CHIP	330	5%	1/16W
R15	1-216-821-11	METAL CHIP	1K	5%	1/16W
R16	1-247-883-00	RES, CARBON	150K	5%	1/4W
R17	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R18	1-216-815-11	METAL CHIP	330	5%	1/16W
R19	1-218-653-11	METAL CHIP	24	0.5%	1/16W
R20	1-218-653-11	METAL CHIP	24	0.5%	1/16W
R21	1-216-815-11	METAL CHIP	330	5%	1/16W
R22	1-216-817-11	METAL CHIP	470	5%	1/16W
R23	1-216-797-11	METAL CHIP	10	5%	1/16W
R24	1-216-798-11	RES, CHIP	12	5%	1/16W
R25	1-216-805-11	METAL CHIP	47	5%	1/16W
R26	1-218-332-11	RES, CHIP	130K	5%	1/16W
R27	1-216-833-11	METAL CHIP	10K	5%	1/16W
R28	1-218-719-11	METAL CHIP	13K	0.5%	1/16W
R29	1-216-801-11	METAL CHIP	22	5%	1/16W
R30	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R31	1-218-668-11	METAL CHIP	100	0.5%	1/16W
R32	1-216-814-11	METAL CHIP	270	5%	1/16W
R33	1-202-923-11	RES, CHIP	130	5%	1/16W
R34	1-216-805-11	METAL CHIP	47	5%	1/16W
R35	1-202-923-11	RES, CHIP	130	5%	1/16W
R37	1-218-653-11	METAL CHIP	24	0.5%	1/16W
R38	1-218-717-11	METAL CHIP	11K	0.5%	1/16W
R39	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R40	1-218-668-11	METAL CHIP	100	0.5%	1/16W
R41	1-218-288-11	RES, CHIP	300	5%	1/16W
R42	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R43	1-216-864-11	METAL CHIP	0	5%	1/16W
R45	1-216-833-11	METAL CHIP	10K	5%	1/16W
R47	1-216-836-11	METAL CHIP	18K	5%	1/16W
R48	1-219-570-11	METAL CHIP	10M	5%	1/16W
R50	1-218-653-11	METAL CHIP	24	0.5%	1/16W
R51	1-216-833-11	METAL CHIP	10K	5%	1/16W
R52	1-218-653-11	METAL CHIP	24	0.5%	1/16W
R53	1-216-833-11	METAL CHIP	10K	5%	1/16W
R54	1-216-833-11	METAL CHIP	10K	5%	1/16W
R55	1-216-864-11	METAL CHIP	0	5%	1/16W
R57	1-216-833-11	METAL CHIP	10K	5%	1/16W
R58	1-216-824-11	METAL CHIP	1.8K	5%	1/16W
R60	1-216-815-11	METAL CHIP	330	5%	1/16W
R61	1-219-570-11	METAL CHIP	10M	5%	1/16W
R62	1-218-332-11	RES, CHIP	130K	5%	1/16W
R63	1-216-798-11	RES, CHIP	12	5%	1/16W
R66	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R67	1-216-833-11	METAL CHIP	10K	5%	1/16W
R68	1-216-833-11	METAL CHIP	10K	5%	1/16W
R70	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R71	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R72	1-216-833-11	METAL CHIP	10K	5%	1/16W
R74	1-216-821-11	METAL CHIP	1K	5%	1/16W
R75	1-216-839-11	METAL CHIP	33K	5%	1/16W
R76	1-216-812-11	METAL CHIP	180	5%	1/16W
R77	1-216-694-11	METAL CHIP	62K	0.5%	1/10W
R78	1-216-846-11	METAL CHIP	120K	5%	1/16W
R79	1-216-833-11	METAL CHIP	10K	5%	1/16W
R83	1-216-694-11	METAL CHIP	62K	0.5%	1/10W
R84	1-218-763-11	METAL CHIP	300K	0.5%	1/10W
R85	1-216-800-11	RES, CHIP	18	5%	1/16W
R86	1-216-861-11	METAL CHIP	2.2M	5%	1/16W
R89	1-216-864-11	METAL CHIP	0	5%	1/16W
R90	1-216-853-11	METAL CHIP	470K	5%	1/16W
R92	1-216-833-11	METAL CHIP	10K	5%	1/16W
R93	1-216-833-11	METAL CHIP	10K	5%	1/16W
R95	1-216-833-11	METAL CHIP	10K	5%	1/16W
R96	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R99	1-216-821-11	METAL CHIP	1K	5%	1/16W
R101	1-216-818-11	METAL CHIP	560	5%	1/16W
R102	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R103	1-216-853-11	METAL CHIP	470K	5%	1/16W
R105	1-216-833-11	METAL CHIP	10K	5%	1/16W
R106	1-216-833-11	METAL CHIP	10K	5%	1/16W
R107	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R108	1-218-292-11	RES, CHIP	20K	5%	1/16W
R111	1-216-296-00	METAL CHIP	0	5%	1/8W
R113	1-216-864-11	METAL CHIP	0	5%	1/16W
R115	1-216-833-11	METAL CHIP	10K	5%	1/16W
R117	1-216-833-11	METAL CHIP	10K	5%	1/16W
R119	1-218-683-11	METAL CHIP	430	0.5%	1/16W
R120	1-216-840-11	METAL CHIP	39K	5%	1/16W
R138	1-216-821-11	METAL CHIP	1K	5%	1/16W

Ref. No.	Part No.	Description	Remark
		< IC/SPEAKER/MIC/BUZZER >	
U1	8-759-461-45	IC MC13156FB	
U2	8-759-459-05	IC LMX2337MX	
U5	8-759-459-07	IC LP2981IM5-3.0	
U9	1-505-593-11	SPEAKER (2.8cm)	
U10	1-542-260-31	MICROPHONE, ELECTRET CONDENSER	
U11	8-759-463-28	IC AM79C491JC-C04	
U12	1-505-594-11	BUZZER	
U13	8-759-540-47	IC NM93C86LM8-ID910H	
		< VIBRATOR >	
X1	1-767-458-11	VIBRATOR, CRYSTAL (18.25MHz)	

****

MISCELLANEOUS
****

53	1-771-696-11	SWITCH, SHEET (H/S KEY)	
54	1-771-038-11	SWITCH, RUBBER KEY (H/S KEY)	
60	1-771-041-11	SWITCH, SHEET (VOL)	
65	1-771-037-11	SWITCH, RUBBER KEY (VOL)	
ANT1	1-501-914-11	ANTENNA	
ANT2	1-501-999-11	ANTENNA	
LCD1	1-801-718-11	LCD MODULE	
U9	1-505-593-11	SPEAKER (2.8cm)	
U10	1-542-260-31	MICROPHONE, ELECTRET CONDENSER	
U12	1-505-594-11	BUZZER	

****

****
HARDWARE LIST
****

#1	7-685-547-19	SCREW +BTP 3X10 TYPE N-S
#3	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S
#4	7-685-548-19	SCREW +BTP 3X12 TYPE2 N-S
#5	7-623-208-22	SW 3, TYPE2
#6	7-685-105-19	SCREW +P 2X8 TYPE2 NON-SLIT

9-923-970-84

Sony Corporation
Digital Telecommunication Company

99D0516-1
Printed in Japan © 1999. 4
Published by Mobile Electronics Company
Quality Assurance Dept.